

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: HAWKINS POND	Lake Area (ha):	37.51
Town: CENTER HARBOR	Maximum depth (m):	10.0
County: Belknap	Mean depth (m):	3.4
River Basin: Merrimack	Volume (m <sup>3</sup> ):	1270500
Latitude: 43°41'25" N	Relative depth:	1.5
Longitude: 71°33'32" W	Shore configuration:	1.34
Elevation (ft): 601	Areal water load (m/yr):	5.71
Shore length (m): 2900	Flushing rate (yr <sup>-1</sup> ):	1.70
Watershed area (ha): 440.3	P retention coeff.:	0.63
% watershed ponded: 1.3	Lake type:	natural w/dam

<u>BIOLOGICAL:</u>		5 March 1998	16 July 1997
DOM. PHYTOPLANKTON (% TOTAL)	#1	SYNURA 85%	DINOBRYON 40%
	#2		ASTERIONELLA 30%
	#3		SYNURA 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			8.94
DOM. ZOOPLANKTON (% TOTAL)	#1	LRG RND CILIATE SPP 65%	KELICOTTIA 47%
	#2	KERATELLA 15%	NAUPLIUS LARVA 13%
	#3	CYCLOPOID COPEPOD 10%	BOSMINA 7%
ROTIFERS/LITER		21	99
MICROCRUSTACEA/LITER		10	61
ZOOPLANKTON ABUNDANCE (#/L)		94	167
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			2.5
BOTTOM DISSOLVED OXYGEN (mg/L)		0.3	0.0
BACTERIA (E. coli, #/100 ml)	#1		55
	#2		6
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	3.7
Hypolimnion volume (m <sup>3</sup> ):	102000
Anoxic volume (m <sup>3</sup> ):	170750

**CHEMICAL:**

Lake: HAWKINS POND  
Town: CENTER HARBOR

	5 March 1998		16 July 1997		
DEPTH (m)	4.0	7.0	2.0	5.0	8.0
pH (units)	6.3	6.2	7.0	6.3	6.1
A.N.C. (Alkalinity)	8.0	8.8	4.9	6.8	10.1
NITRATE NITROGEN	< 0.05	< 0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30	0.10	0.30	0.30	0.40
TOTAL PHOSPHORUS	0.009	0.012	0.013	0.020	0.026
CONDUCTIVITY ( $\mu$ mhos/cm)	61.0	66.4	50.3	48.0	55.4
APPARENT COLOR (cpu)	30	37	18	19	44
MAGNESIUM			0.61		
CALCIUM			3.3		
SODIUM			4.9		
POTASSIUM			0.80		
CHLORIDE	9	11	7		7
SULFATE	4	4	4		3
TN : TP	33	8	23		15
CALCITE SATURATION INDEX			3.1		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1997**

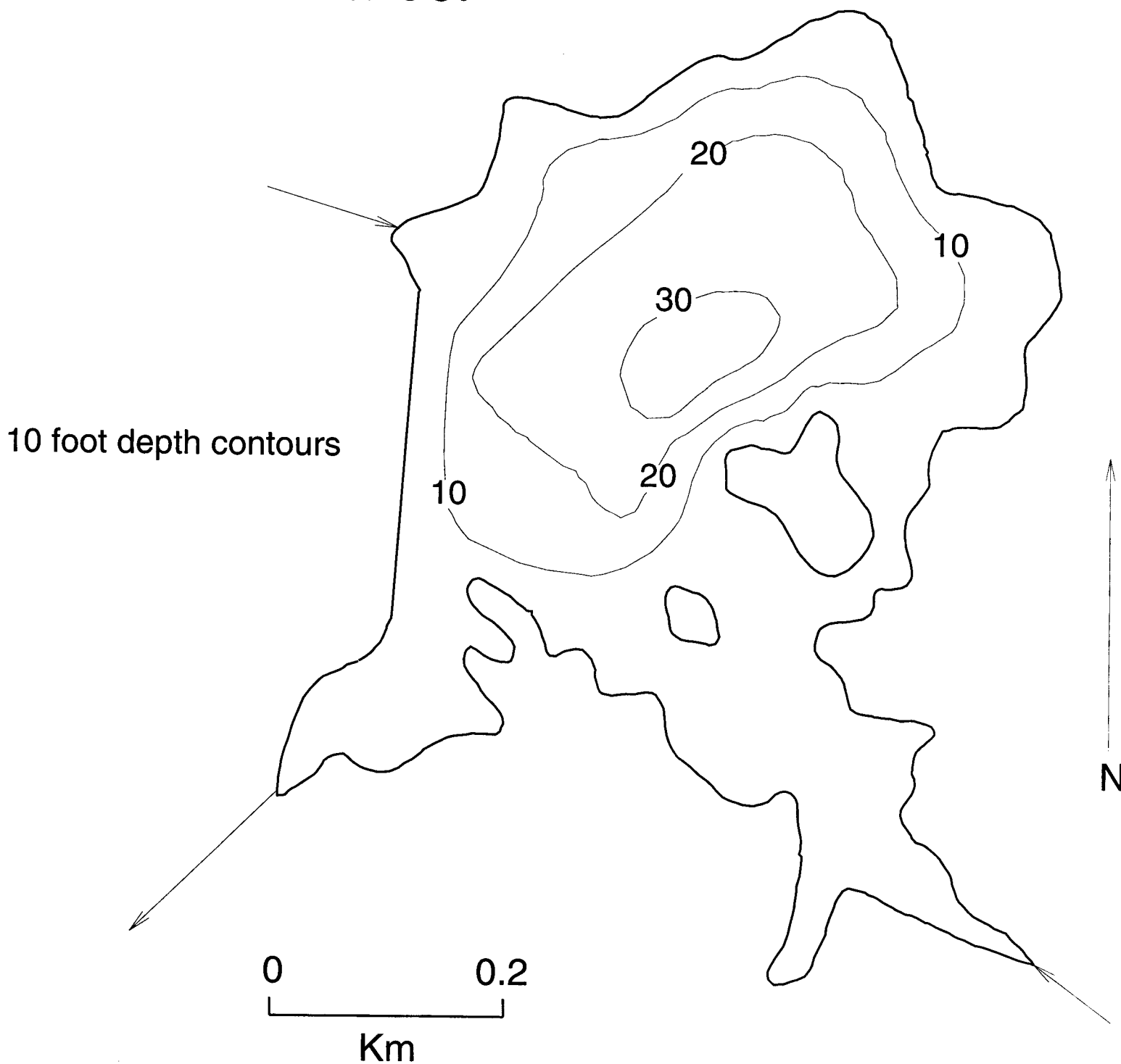
D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
4	3	5	2	14	Eutro.

**COMMENTS:**

1. This pond was previously surveyed in 1977 and was classified as eutrophic at that time too. There was little change in water quality over the 20 year period.
2. The hypolimnion volume was relatively small (8% of lake volume) but the entire hypolimnion was devoid of dissolved oxygen. In fact, the winter bottom D.O. was essentially zero, which occurs in less than 5% of the state's lakes and ponds.
3. Two boat ramps were available - both near the dam. The F&G launch is a steep incline and has parking; the other ramp is less steep but with no parking.

# Hawkins Pond

## Center Harbor



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TOWN: CENTER HARBOR  
WEATHER: OVERCAST, HAZY & WARM

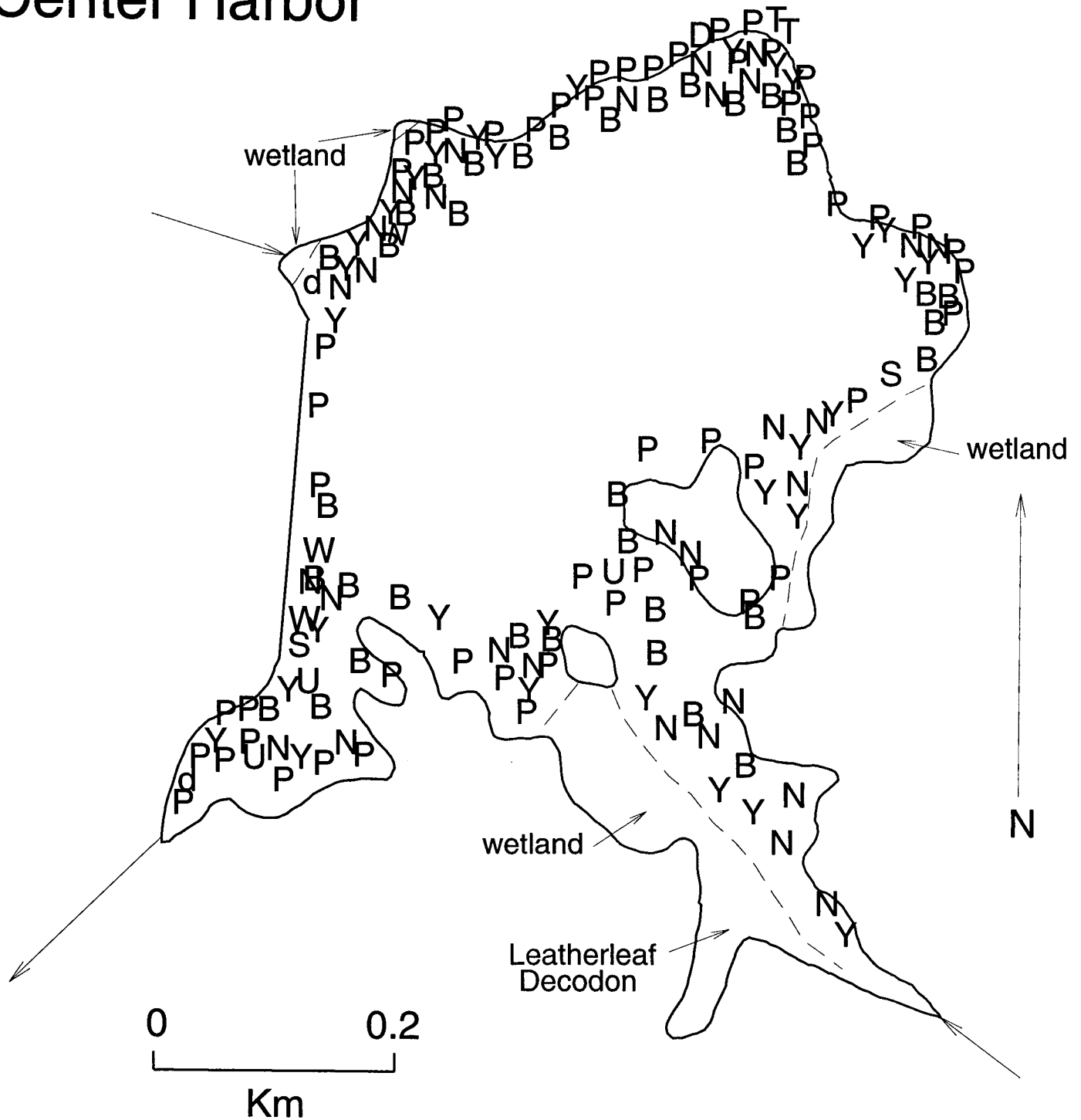
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**COMMENTS :**

\*Dissolved oxygen values are in mg/L

# Hawkins Pond

## Center Harbor



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